STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT **1800 Washington Blvd.** **Baltimore, Maryland 21230**	*	**IN THE CIRCUIT COURT** **FOR BALTIMORE** **COUNTY, MARYLAND**
Plaintiff,	*	
v.	*	
RG STEEL SPARROWS POINT, LLC **1430 Sparrows Point Blvd.** **Sparrows Point, Maryland 21219**	*	**CASE NO.:** 03-C-11-009142
Defendant.	*	

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CONSENT DECREE

WHEREAS, the Air and Radiation Management Administration of the Maryland Department of the Environment ("the Department") is charged with the responsibility for regulating air pollution in the State of Maryland and enforcing State air pollution control laws and regulations. The Department's authority is set forth in §§ 1-301, 1-402, 1-404 and Title 2 of the Environment Article, Annotated Code of Maryland, and in Title 26, Chapter 11 of the Code of Maryland Regulations ("COMAR");

I. A LLEGED VIOLATIONS

WHEREAS, RG Steel Sparrows Point, L.L.C. ("RG Steel") owns and operates an integrated iron and steel making complex on approximately 2,300 acres of property located at and adjacent to 1430 Sparrows Point Boulevard in Sparrows Point, Baltimore County, Maryland (the "Sparrows Point Facility"). The Sparrows Point Facility is

comprised of several process departments that are further divided into plants or production lines. In relevant part, the Sparrows Point Facility includes a Sintering Plant, a Blast Furnace, a Basic Oxygen Furnace Shop, a Cold Reduction Mill and a Power Station, with each of these installations containing several emission units;

WHEREAS, the Sparrows Point Facility is subject to emissions limitations and other requirements applicable to iron and steel production installations as provided in Title 2 of the Environment Article and Title 26, Subtitle 11, Chapter 10 of the Code of Maryland Regulations ("COMAR");

WHEREAS, the Sparrows Point Facility is required to obtain an operating permit pursuant to the federal Clean Air Act. The Department first issued a Title V operating permits to the Sparrows Point Facility on June 1, 2005. A draft Title V permit renewal was presented to the public for review in 2010, but the review process was not finalized. A redraft of the renewal permit, which will include elements of this Consent Decree, will be presented for public review;

WHEREAS, COMAR 26.11.02.05(A) requires compliance with all terms and conditions of air quality control permits issued by the Department;

Sintering Plant

WHEREAS, RG Steel operates a sintering plant to fuse a raw material mix, including iron ore fines, coke breeze, and limestone, into high quality sinter for use as feed in the facility's L-Blast Furnace. RG Steel's sintering process emits volatile organic compounds ("VOCs") into the ambient atmosphere;

WHEREAS, pursuant to COMAR 26.11.10.06(C)(1), RG Steel's sintering plant

may not exceed an emissions standard calculated on a daily average basis of 0.25 pound of VOC per ton of sinter produced. Pursuant to COMAR 26.11.10.01(B)(8), a ton of sinter produced means the weight of sinter that is transferred to the blast furnace stockhouse during a calendar day;

WHEREAS, sinter plant operations during the 2005 through 2008 calendar years were representative of normal sinter plant operations at the Sparrows Point Facility. During that time period, the Sparrows Point Facility was generally in compliance with the VOC emissions limit established by COMAR 26.11.10.06(C)(1). The daily emissions of VOC from compliant sinter plant operations during that time ranged from 19 to 2,340 pounds of VOC per day;

WHEREAS, the Department alleges that RG Steel violated COMAR 26.11.10.06(C) on thirteen days between September 13, 2008 and October 23, 2008, on June 25, 2009, and on four days between October 2, 2009 and October 12, 2009, where its sintering plant operations exceeded 0.25 pounds VOC per ton of sinter produced;

WHEREAS, RG Steel contends that it acted reasonably in addressing the alleged sintering plant violations by promptly shutting down sintering operations when it became apparent that a violation would occur, and conducting an extensive study to determine the cause of the violations. RG Steel analyzed all the materials used to make sinter to determine the cause of the high VOC emissions in comparison to low output of "produced sinter." RG Steel alleges that, due to its prompt action, the sinter plant generally emitted less VOC than would have been emitted during a normal 24-hour production cycle which complied with the VOC emissions limits of COMAR 26.11.10.06(C)(1);

Blast Furnace

WHEREAS, RG Steel operates a blast furnace to extract, reduce, and melt iron so that it can be cast from the furnace as "molten iron". This process requires that iron-rich materials are fed, or charged, into the top of the L-Blast Furnace, a tall, chimney-like structure lined with refractory brick. Once these materials are charged into the furnace top, heated air is blown into the bottom of the furnace chamber. The materials go through numerous chemical and physical reactions while descending to the bottom of the furnace. Ultimately, molten iron is tapped from the bottom of the furnace;

WHEREAS, blast furnace gas is a byproduct created during the chemical reaction process of the L-Blast Furnace. Blast furnace gas contains carbon monoxide ("CO") and particulate matter ("PM"), each of which is a criteria air pollutant under the federal Clean Air Act;

WHEREAS, the blast furnace is equipped with four bleeder valves located at the very top of the blast furnace. The bleeder valves include a wash gas bleeder, also known as the clean gas bleeder because this bleeder is located in the gas cleaning system, downstream of a particulate matter control device (i.e. a cyclonic dust catcher) and upstream of the blast furnace gas scrubber. The other three bleeders are known as dirty gas bleeders because they are located before any pollution control equipment;

WHEREAS, the bleeder valves serve two principal functions. The first function is to act as a safety relief valve to prevent over-pressurization of the furnace structure that could result in an explosion or a breach of the furnace, presenting a high risk of death or serious injury to blast furnace workers and serious damage to the furnace. In this capacity,

the bleeder valves have independent, predetermined pressure set points which are set to automatically open the valves in sequence when furnace pressure rises above the corresponding valve's excess pressure set point. The clean gas bleeder's primary purpose is to relieve pressure within the gas cleaning system, and its secondary purpose is to relieve pressure within the furnace. The dirty gas bleeders function by providing an escape valve for excess furnace pressures that exceed the ability of the clean gas bleeder to relieve, and trigger in series depending on the extent of excess pressures and the extent of immediate pressure relief capacity that is required to ensure safe operation of the furnace. The second function is to release pressurization in order to shut down the blast furnace for maintenance or repair, serving as a part of the system that creates a draft condition in the furnace. The draft condition allows for the development of negative pressure inside the lower part of the furnace so that workers can safely enter the structure. During normal iron making operations, the bleeders are closed and have no emissions;

WHEREAS, pursuant to COMAR 26.11.10.04(A), RG Steel may not cause or permit the discharge of confined emissions of particulate matter in excess of 0.03 grains per standard cubic foot dry (gr/scfd) from any of its iron and steel production installations;

WHEREAS, pursuant to COMAR 26.11.10.03(A), RG Steel may not cause or permit the discharge of emissions from its iron and steel production installations, other than water in an uncombined form, which is visible to human observers except for confined emissions resulting from start-ups, process modifications or adjustments, or occasional cleaning of control equipment if the visible emissions are not more than 40% opacity and do not occur for more than six consecutive minutes in any sixty-minute period;

WHEREAS, pursuant to COMAR 26.11.06.08, an installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created;

WHEREAS, on September 29, 2009, RG Steel experienced a sudden pressure surge at the blast furnace that lasted for approximately 3 minutes which caused the opening of the clean gas bleeder valve and all three dirty gas bleeder valves for various periods of time during the event. The pressure surge event occurred simultaneously with the charging of a batch of coke into the furnace. The force of the escaping blast furnace gas forced coke out of the dirty gas bleeder valves. The escaping blast furnace gas and coke ignited, resulting in a visible flame. The Department alleges that this incident violated COMAR 26.11.10.04(A), COMAR 26.11.10.03(A), and COMAR 26.11.06.08;

WHEREAS, on October 12, 2009, RG Steel experienced an incident at its blast furnace which caused a dirty gas bleeder valve to open. Approximately one hour and forty minutes after the first incident, the dirty gas bleeder valve opened again. RG Steel was unable to close the valve for nearly forty (40) minutes. The Department alleges that this incident violated COMAR 26.11.10.04(A), and COMAR 26.11.06.08;

WHEREAS, on October 13, 2009, RG Steel experienced a surge in top pressure which caused a dirty gas bleeder valve to open. RG Steel was not able to close the valve for one (1) hour and thirty-five (35) minutes. The Department alleges that this incident violated COMAR 26.11.10.04(A), and COMAR 26.11.06.08;

WHEREAS, on October 26, 2009, RG Steel experienced an incident which caused two (2) dirty gas bleeder valves to open. RG Steel was unable to close the valves for what was logged as a "prolonged period." The Department alleges that this incident

violated COMAR 26.11.10.04(A) and COMAR 26.11.06.08;

WHEREAS, beginning on November 24, 2009 and continuing through November 26, 2009, RG Steel experienced a period of repeated dirty gas bleeder valve openings. The Department alleges that RG Steel violated COMAR 26.11.10.04(A) and COMAR 26.11.06.08 on each day the dirty gas bleeder valves opened;

WHEREAS, pursuant to COMAR 26.11.10.04(B)(1), RG Steel may not cause or permit the discharge of fugitive emissions of particulate matter from its iron and steel production installations unless reasonable control methods are employed to minimize emissions. Fugitive emissions, as defined in COMAR 26.11.01.01(B)(18), include emissions which escape into the outdoor atmosphere through poorly fitting closures or poorly maintained equipment;

WHEREAS, on October 18, 2009, RG Steel discovered a leak in the seat of a dirty gas bleeder valve. At that time, RG Steel decided a repair of the leak was not immediately warranted. On November 12, 2009, RG Steel determined a shutdown was required to repair the leak, which was now coming from a one-half inch wide hole. On November 19, 2009, RG Steel successfully weld repaired the leak in the dirty gas bleeder valve. The Department alleges that RG Steel violated COMAR 26.11.10.04(B)(1) on each of the 29 days it failed to repair the leak after first discovering it;

Blast Furnace Casthouse

WHEREAS, the area around the base of the blast furnace, including all iron and slag runners, is enclosed by a casthouse, where the molten iron is cast from the bottom of the furnace. During casting, molten iron flows into runners that lead to railroad cars

designed to transport the molten iron. Slag also flows from the furnace and is directed through separate runners to a slag granulation plant or a slag pit adjacent to the casthouse if the slag granulation plant is not in service. Particulate emissions are generated when the molten iron and slag contact air, and by the drilling and plugging of the casting tap holes. Particulate matter from the casthouse operations is controlled through a baghouse;

WHEREAS, pursuant to COMAR 26.11.10.04(B)(2)(b), reasonable control methods for the casthouse at RG Steel's blast furnace include the use of hoods and control equipment;

WHEREAS, pursuant to 40 C.F.R. §§ 63.7790(b)(1) and 63.7800(b), and Section IV, Condition 3a of RG Steel's operating permit, RG Steel must operate its baghouse at or above the lowest value or settings established in RG Steel's operation and maintenance plan;

WHEREAS, prior to restarting and operating its baghouse at or above the lowest value or settings established in its operation and maintenance plan, RG Steel performed two casts on April 13, 2009 and two casts on April 14, 2009. The Department alleges that RG Steel violated COMAR 26.11.10.04(B)(2)(b) and COMAR 26.11.02.05(A) on each day it performed a cast without operating the baghouse;

Blast Furnace Stove Stack

WHEREAS, some of the blast furnace gas which has been cleaned by the furnace's particulate matter control devices is conveyed to the blast furnace's "hot blast stoves". There, the cleaned blast furnace gas is burned to heat stove brickwork that in turn will heat the air which will be blown into the bottom of the blast furnace. Combustion of the blast furnace gas generates emissions which are released to the ambient atmosphere through the

stove stacks;

WHEREAS, pursuant to COMAR 26.11.10.03(A), RG Steel may not cause or permit the discharge of emissions from its iron and steel production installations, other than water in an uncombined form, which is visible to human observers;

WHEREAS, the Department alleges that RG Steel violated COMAR 26.11.10.03(A) on four days between July 16, 2009 and October 16, 2009, where visible emissions were observed lasting longer than 6 consecutive minutes;

WHEREAS, modifications and process control improvements designed to improve combustion efficiency were completed for the stove stack emission controls in late 2009. RG Steel contends that, although the system improvements are currently in place, the extended downtime of the L Blast Furnace has delayed system optimization, which must occur during actual operations;

Basic Oxygen Furnace Shop

WHEREAS, molten iron from the blast furnace is refined in RG Steel's Basic Oxygen Furnace Shop into molten steel. On occasion, the molten iron used in this process may be transferred into charging ladles at the emergency reladling pit. This process causes fugitive particulate matter emissions;

WHEREAS, pursuant to COMAR 26.11.10.04(B)(2)(c)(i), reasonable control methods for controlling fugitive particulate matter emissions from a Basic Oxygen Furnace Shop include flame suppression on the emergency pit;

WHEREAS, on May 13, 2009, RG Steel failed to use its natural gas fired flame-suppression equipment during reladling operations in the emergency pit. The Department

alleges that this incident violated COMAR 26.11.10.04(B)(2)(c)(i);

Cold Reduction Mill

WHEREAS, as part of its finishing operations, RG Steel performs steel pickling to remove oxide and scale from the surface of certain steel products at its Cold Reduction Mill. Steel pickling involves the bathing of steel products in a hydrochloric acid solution. This process causes the emission of a hazardous air pollutant ("HAP"), specifically hydrochloric acid. RG Steel uses a wet scrubber to control HAP emissions;

WHEREAS, pursuant to COMAR 26.11.15.02(C), a person may not construct, reconstruct, or operate, or cause to be constructed, reconstructed, or operated, a MACT source which results, or will result, in violation of any provision of 40 C.F.R. Part 63;

WHEREAS, pursuant to 40 C.F.R. § 63.1162(a)(1) and Section IV, Condition 10 of its operating permit, RG Steel is required to perform periodic performance testing on the wet scrubber to set minimum water flow and recirculation rates. Pursuant to 40 C.F.R. § 63.1161(b) and Section IV, Subsection 10, Testing Requirement D of its operating permit, the average values measured during the performance test are used to establish the wet scrubber operating parameter values for the minimum makeup water flow rate and minimum recirculation water flow rate;

WHEREAS, on August 19 and 20, 2008, RG Steel performed the required periodic stack test on the scrubber controlling its pickling operations. On November 10, 2008, the Department sent a letter to RG Steel which approved the stack test and, based on the test results, established a new minimum scrubber makeup water flow rate of 6.1 gallons per minute (gpm) and a minimum recirculation water flow rate of 429.3 gpm;

WHEREAS, on 22 days beginning on November 10, 2008 and continuing through January 14, 2009, RG Steel failed to implement and maintain the new minimum scrubber makeup water flow rate on the wet scrubber controlling the steel pickling line, but did maintain the minimum water flows derived from the previous compliance test. RG Steel contends that its maintenance of the minimum water flow rates derived from the previous compliance test demonstrate compliance with the applicable HAP emissions limits. The Department alleges that RG Steel violated COMAR 26.11.02.05(A) and COMAR 26.11.15.02(C) on each day it failed to maintain the new minimum makeup water flow rate established by the August 2008 performance test;

Pennwood Power Station

WHEREAS, the Pennwood Power Station generates steam and electricity for the Sparrows Point Facility. The power station consists of four boilers which burn a variety of fuels, including cleaned blast furnace gas not used in the blast furnace stoves. This process generates emissions. Each boiler's emission are monitored for compliance with State opacity emissions limits by a Continuous Opacity Monitoring System ("COMS"), in accordance with COMAR 26.11.01.10;

WHEREAS, pursuant to Section IV, Subsection 12, Monitoring Requirement A of its operating permit, RG Steel must perform an EPA Method 9 observation of the stack gases at least once per day for 18 minutes when the COMS servicing the Pennwood Power Station is out of service;

WHEREAS, at approximately 01:42 hours on February 15, 2009, RG Steel restarted Boiler No. 3 following an outage. The COMS system measuring Boiler No. 3's

emissions did not restart, and failed to begin measuring opacity;

WHEREAS, the Department alleges that on February 16, 2009, RG Steel violated COMAR 26.11.03.06(C) when it failed to perform at least one 18 minute Method 9 observation on the emissions from Boiler No. 3 when the COMS servicing that emissions unit was out of service for more than twenty-four (24) hours;

WHEREAS, the Department issued a Notice of Violation and Opportunity to Settle letter to RG Steel on September 24, 2009 ("2009 NOV"). The Department issued another Notice of Violation and Opportunity to Settle letter to RG Steel on August 31, 2010 ("2010 NOV"). All facts and allegations of the 2009 NOV and 2010 NOV are hereby incorporated by reference;

II. EMISSIONS CONTROLS

WHEREAS, the regulatory standard limiting confined emissions of particulate matter to 0.03 gr/scfd from any installation, including steel production facilities, was first promulgated by the Department of Health and Mental Hygiene in December 1970. Specific regulations limiting particulate matter from any iron and steel production installation to 0.03gr/scfd were first proposed in 1976 and were finalized in 1977 following negotiations between Maryland, the Environmental Protection Agency, and Bethlehem Steel (a previous owner of the Sparrows Point Facility);

WHEREAS, Maryland has issued the Sparrows Point Facility several construction permits and a Title V Operating permit. The dirty gas bleeder valves were not given identification numbers in the permit to construct application filed in conjunction with Permit No. 03-6-0939M, or in the 1997, 2000, or 2002 Title V Operating Permit

applications submitted for the Sparrows Point Facility. The permit applications were submitted by prior operators of the Sparrows Point Facility and without RG Steel's knowledge or consent. While the dirty gas bleeders were identified in the process flow diagrams included with the 2000 and 2002 Title V permit applications, the dirty gas bleeders were not included as emissions units in the Title V Operating permit issued June 1, 2005;

WHEREAS, the Department acknowledges that controlling emissions from the dirty gas bleeder valves on the L-Blast Furnace involves difficult and complex issues. To the best of the Department's knowledge, the Sparrows Point Facility is the only blast furnace in the country that is required to limit particulate matter emissions from a blast furnace's dirty gas bleeder valves to a specific grain loading standard. The Department typically uses stack testing to determine compliance with grain loading standards. The Department further acknowledges that it is not possible to perform stack testing on the dirty gas bleeder valves to determine compliance with the currently applicable grain loading standard;

WHEREAS, RG Steel contends there is no pollution control device that can meet the State's grain loading standard or visible emissions standard while retaining the safety specifications for which the dirty gas bleeder valves are designed and installed. Accordingly, the operating practices described by this Consent Decree shall be imposed in lieu of the ability to measure grain loading from the dirty gas bleeder valves, and shall serve as a means to evaluate compliance with any applicable grain loading standard under COMAR 26.11.10.04(A) and visible emission standard under COMAR 26.11.10.03(A) as

currently enacted;

WHEREAS, the sinter plant has been idle since October 29, 2009. Upon start up of the sinter plant, RG Steel intends to modify its operation to provide an alternate means of developing sinter feed material through the use of bins and conveyors in lieu of static piles;

WHEREAS, the modified sinter plant operation will allow RG Steel to react quickly to increasing VOC emission levels so as to implement changes designed to prevent a violation of the VOC standard;

WHEREAS, the operating practices which shall be developed and implemented in accordance with this agreement will help limit and control future emissions from the dirty gas bleeder valves; and

WHEREAS, the Department and RG Steel agree that resolution of the Department's claim for the violations alleged in Section I of the Consent Decree and the Complaint filed in this matter (collectively, "Alleged Violations"), without the expense and inconvenience of litigation and without the admission, imposition, or adjudication of liability or guilt, is in the best interests of the parties and in the public interest.

III. P ENALTY AND RELEASE

NOW, THEREFORE, without any admission of the Alleged Violations and in settlement thereof, the Department hereby ORDERS and RG Steel hereby CONSENTS to the following terms and conditions:

Administrative Penalty

1. RG Steel shall make a settlement payment to the Department in the amount

of **one hundred and thirty-five thousand dollars ($135,000.00)** for the Alleged Violations. The settlement payment shall be paid no later than 30 days following the effective date of this Consent Decree. Payment shall be by certified check for the full amount made payable to "the Maryland Department of the Environment/Clean Air Fund" and sent to:

The Maryland Department of the Environment

P.O. Box 2037

Baltimore, Maryland 21203-2037

Operational Restrictions

2. RG Steel shall operate and maintain the L-Blast Furnace in a manner to minimize emissions from the dirty gas bleeder valves. Compliance with the operating practices and other provisions impacting bleeder valve emissions required pursuant to this Consent Decree shall be presumed to be in compliance with COMAR 26.11.10.03(A) and COMAR 26.11.10.04(A), until and unless COMAR 26.11.10.03(A) and/or COMAR 26.11.10.04(A) are amended or a new regulation is promulgated regulating visible or particulate matter emissions from the dirty gas bleeder valves. Upon implementation of any such regulation, RG Steel shall be required to comply with the requirements of the respective regulation.

3. The presumption of compliance in Paragraph 2 may be rebutted in a civil or administrative action for violation of COMAR 26.11.10.03(A) or COMAR 26.11.10.04(A) where there is evidence of excessive discharges from the dirty gas bleeders, to be assessed on a rolling 30 day time period. Nothing in this Consent Decree shall be deemed to be a

waiver of RG Steel's right to contest such allegations by the Department, or any other person, nor a waiver of any rights to contest any allegations under COMAR 26.11.06.08.

4. Within two months of the execution of this Consent Decree, RG Steel shall submit a L-Blast Furnace startup, shutdown, and malfunction plan developed to minimize emissions from the dirty gas bleeder valves (the "Bleeder SSM Plan"). The Bleeder SSM Plan shall include the procedures for operating and maintaining the gas bleeder valves during facility startup and shutdown operations and during malfunction events. Such procedures shall be designed to minimize emissions consistent with safety and the industry operating practices. The Bleeder SSM Plan shall be incorporated into RG Steel's Title V operating permit for the Sparrows Point Facility.

Blast Furnace Shutdown Procedures

5. Upon execution of this Consent Decree and at all times thereafter, RG Steel shall implement, at a minimum, each of the following procedures to minimize emissions from the dirty gas bleeder valves during any shutdown of the blast furnace. These procedures shall be included in the Bleeder SSM Plan.

a. During a shutdown of the blast furnace, RG Steel shall not charge (i.e. add) any materials into the furnace when wind on the furnace is 80,000 standard cubic feet per minute ("scfm") or less and a dirty gas bleeder is open.

b. RG Steel shall not open any dirty gas bleeder valve during shutdown until the blast furnace pressure is reduced to 5 pound-force per square inch gauge ("psig") (approximately 40,000 scfm wind) or less.

c. Upon the opening of one dirty gas bleeder, RG Steel shall isolate the

furnace structure from the downstream blast furnace gas main. The systematic steps required to isolate the furnace structure from the blast furnace gas main shall be taken as quickly as practicable, consistent with safety and facility operating practices.

d. Once the blast furnace gas main is isolated, RG Steel shall gradually reduce all wind to the furnace until zero wind is achieved. No more than one dirty gas bleeder valve shall be opened until zero wind is achieved.

e. Once zero wind has been achieved, one or more additional dirty gas bleeder valves may be opened and/or remain open to create backdraft conditions sufficient to remove blast furnace gas from the furnace such that suitable safety conditions are maintained.

Blast Furnace Startup Procedures

6. Upon execution of this Consent Decree and at all times thereafter, RG Steel shall implement, at a minimum, each of the following procedures to minimize emissions from the dirty gas bleeder valves during any startup of the blast furnace. These procedures shall be included in the Bleeder SSM Plan.

a. Prior to restart, RG Steel personnel will verify that the seats of all open dirty gas bleeder valves have been cleaned and are prepared for closing. RG Steel shall perform preventative valve maintenance in accordance with the facility operating practices, before returning any wind to the furnace.

b. Prior to returning any wind to the furnace, all but one dirty gas bleeder valve shall be closed. Once closed, RG Steel may gradually increase wind to the furnace to no greater than 5 psig blast pressure (approximately 40,000 scfm).

c. Once 5 psig blast pressure is achieved, maintenance personnel will inspect the tuyere platform for leaks and to verify that there is air blowing through all the tuyeres.

d. Following inspection of the tuyere platform and reconnection of the downstream blast furnace gas main, the final dirty gas bleeder valve shall be closed.

e. Following closure of all dirty gas bleeder valves, RG Steel may gradually increase wind to 80,000 scfm. Charging into the blast furnace will not resume until at least 80,000 scfm wind is achieved.

f. Once the furnace wind rate reaches 110,000 scfm, RG Steel personnel will conduct visual inspections of the dirty gas bleeder valves from the 229 level of the furnace to ensure proper operation of the valves. If not seated properly, charging to the furnace will be stopped until the valves are properly seated and any leaks are stopped. Procedures to correct improper seating of the bleeders may include attempts to reseat them by opening and then quickly closing the malfunctioning valve. If proper seating is not obtained within ten minutes the furnace will be shutdown and repairs to any malfunctioning bleeders shall be performed to ensure proper functioning.

Blast Furnace Emergency Bleeder Operating Procedures

7. Upon execution of this Consent Decree and at all times thereafter, RG Steel shall implement, at a minimum, each of the following procedures to minimize emissions from the dirty gas bleeder valves during any emergency opening of a bleeder valve in order to reduce furnace pressure. These procedures shall be included in the Bleeder SSM Plan.

a. RG Steel shall ensure that the wash gas bleeder valve and each of the

three dirty gas bleeder valves are set to open in succession at increasing pressure settings, consistent with safety and the facility operating practices.

b. The wash gas bleeder valve shall always be set as the first valve to open in sequence. From a control logic standpoint, the wash gas bleeder valve will be set to automatically open for any of the following conditions:

i. Actual furnace top gas pressure greater than 2.1 psig above the furnace top pressure set point;

ii. Mist eliminator pressure greater than 3.75 psig; or

iii. 96 inch blast furnace gas main pressure greater than 78 inches water column (w.c.).

c. Each of the three dirty gas bleeder valves shall be set to automatically open in a sequence of increasing actuation set points, as described below.

i. The primary dirty gas bleeder will be identified as the bleeder with the lowest actuation set point. The primary dirty gas bleeder will be set to automatically open at 28 psig, or at least 6 psig above the furnace top pressure set point, whichever is greater, but not to exceed 32 psig.

ii. The secondary dirty gas bleeder will be identified as the bleeder with the intermediate actuation set point. The secondary dirty gas bleeder will be set to automatically open at 29 psig, or 1 psig above the primary dirty gas bleeder, whichever is greater, but not to exceed 33 psig.

iii. The tertiary dirty gas bleeder will be identified as the bleeder with the highest actuation set point. The tertiary dirty gas bleeder will be set to

automatically open at 30 psig, or 1 psig above the secondary dirty gas bleeder, whichever is greater, but not to exceed 34 psig.

8. Upon execution of this Consent Decree and at all times thereafter, RG Steel shall implement procedures to force all material flow gates closed and stop the charging of any materials into the furnace when any gas bleeder valve opens. These procedures shall include use of a programmable logic controller, or an alternate method approved by the Department, which will automatically prevent charging of materials when any gas bleeder valve is open.

Bleeder Valve Monitoring Requirements

9. Within 6 months of execution of this Consent Decree and at all times thereafter, RG Steel shall install, maintain, and operate equipment which will automatically record:

a. the date, time, and duration of any dirty gas bleeder valve opening;

b. the L-Blast Furnace's differential pressure, top gas pressure, and wind on the furnace at the time of the corresponding bleeder valve opening;

c. the type and amount of any materials charged into the blast furnace during the corresponding bleeder valve opening; and

d. any additional information which may demonstrate that the Sparrows Point Facility followed the Bleeder SSM Plan.

10. RG Steel shall manually record the information required in accordance with Paragraph 9 at any time the automatic recording equipment required by Paragraph 9 is inoperable. RG Steel's obligation to manually record information pursuant to this

Paragraph shall include, but not be limited to, the first 6 months of operation following execution of this Consent Decree and prior to the initial installation and operation of the automatic recording equipment.

11. RG Steel shall report to the Department the information recorded in accordance with Paragraphs 9 or 10 for any dirty gas bleeder opening lasting longer than three minutes, or any succession of openings lasting longer than ten minutes over the course of any rolling 24 hour period. Reports submitted under this Paragraph shall also include a reason for the bleeder valve opening(s) which is(are) the subject of the report, and any additional information demonstrating compliance with the Bleeder SSM Plan. All reports shall be submitted on a quarterly basis by the thirtieth (30th) day following the end of each calendar quarter. Thirty-six (36) months from the effective date of this Consent Decree, RG Steel may petition the Department to reduce this requirement to a record retention obligation. Such request shall be effective upon the Department's approval.

Training Program

12. RG Steel shall establish, implement, and conduct ongoing, periodic training programs for all blast furnace operating personnel with responsibilities that include operation of the L Blast Furnace bleeder equipment, including contractors and maintenance personnel. The training program shall provide staff with instruction on job requirements developed with regard to facility operating practices for controlling or minimizing blast furnace emissions from the bleeder valves.

13. RG Steel shall conduct a training program within 60 days of any modification of its Bleeder SSM Plan, or the procedures developed in accordance with

Paragraph 16.

14. RG Steel shall provide the Department with a specified schedule or frequency for conducting periodic training programs.

Blast Furnace Monitoring Procedures

15. Upon execution of this Consent Decree, RG Steel shall commence a study of furnace indicators and operating conditions which can correspond with sudden increases in hot blast pressure which may be predictive of potential gas bleeder openings ("interim study period"). The interim study period shall last 6 months, commencing with the restart of the L-Blast Furnace. In the event that fewer than 20 incidents resulting in a sudden increase in hot blast pressure occur during the interim study period, the interim study period shall be extended until the earlier of either the occurrence of 20 such incidents, or until RG Steel determines it has sufficient evidence to proceed with the requirements under Paragraph 16. The interim study period shall not extend beyond one year from the execution of this Consent Decree unless the parties otherwise agree in writing.

16. Upon completion of the interim study period, RG Steel shall develop procedures to help the furnace operators to identify in advance and reduce sudden increases in hot blast pressure ("Blast Furnace Monitoring Procedures"). The Blast Furnace Monitoring Procedures shall be based upon the information gathered during the interim study period and shall, at a minimum, include the following:

a. Furnace indicators to be monitored, including a monitoring schedule for the furnace operator;

b. An audio/visual automatic alarm system;

c. Use of programmable logic controller, and pressure/heat indicating devices to assist operators in maintaining normal furnace operations; and

d. Defined wind reduction steps which blast furnace operators are to take upon observance of specific furnace indicators suggesting a potential gas bleeder valve opening.

17. Within 90 days following completion of the interim study period, RG Steel shall submit a copy of the Blast Furnace Monitoring Procedures to the Department, and shall amend the periodic training program required by Paragraph 12 to include adequate instruction on implementation of the Blast Furnace Monitoring Procedures.

Emissions and Technology Assessment

18. RG Steel shall conduct an emissions and technology assessment to determine the extent of emissions from the dirty gas bleeder valves and the existence, feasibility, and safety of installing control technology ("E&T Assessment"). The E&T Assessment shall last one year, commencing with the execution of this Consent Decree. Within 60 days following completion of the E&T Assessment, RG Steel shall submit to the Department a report on the findings of the E&T Assessment. The report shall include, at a minimum, the following information:

a. In all cases where one or more dirty gas bleeder valves discharge to the atmosphere during daylight hours and RG Steel anticipates the discharge before it occurs, including all planned startups and shutdowns, RG Steel shall perform observations of visible emissions from the bleeder valves, starting at the beginning of the discharge and continuing for one hour or until the discharge ceases, whichever occurs first. All

observations under this subparagraph shall be conducted in accordance with EPA Method 9. RG Steel shall submit to the Department any visible emissions report generated in compliance with this Section by the thirtieth (30th) day following the end of the next applicable calendar quarter;

b. In cases where one or more dirty gas bleeder valves discharge for more than 1 hour and during the daylight shift (excluding weekends or holidays) from 0730 to 1600 hours, and the discharge is unplanned or unanticipated, RG Steel shall perform observations of visible emissions from the bleeder valves for one hour or until the discharge ceases, whichever occurs first. All observations under this subparagraph shall be conducted using EPA Method 9. RG Steel shall submit to the Department any visible emissions report generated in compliance with this Section by the thirtieth (30th) day following the end of the next applicable calendar quarter;

c. In cases where one or more dirty gas bleeder valves discharge for more than 1 hour during daylight hours, but not during the daylight shift from 0730 to 1600 hours, or on weekends or holidays, and the discharge is unplanned or unanticipated, RG Steel shall perform non-certified observations of visible emissions from the bleeder valves for one hour or until the discharge ceases, whichever occurs first. RG Steel shall submit to the Department any visible emissions report generated in compliance with this Section by the thirtieth (30th) day following the end of the next applicable calendar quarter; and

d. RG Steel shall have an independent third-party consultant analyze the feasibility of installing and operating particulate matter emission controls for each dirty gas bleeder valve, and submit to the Department the final report created by that consultant.

The report shall evaluate the technical, environmental, safety, and economic feasibility associated with installation of reasonably available pollution control technology and its ability to limit the particulate matter emissions from each individual dirty gas bleeder when open. The analysis shall identify all engineers, equipment vendors, consultants, and contractors who were contacted with regard to or assisted in the creation of the evaluation.

Modified Sinter Plant Operation

19. RG Steel may utilize the following alternate operating scenario to prepare sinter burden in lieu of utilizing static sinter pile beds. Fluxes, breeze, ore fines and ore concentrates will be conveyed to individual bins within the sinter plant building via covered conveyor from the ore field. These materials, when mixed together, will comprise the raw sinter mix. Revert material will also be conveyed to the sinter plant via covered conveyor and stored in bins to be blended as part of the sinter.

20. This Consent Decree supersedes requirement 1.a and 1.b of the October 6, 2006 Consent Decree regarding the building of a standby compliant pile bed when RG Steel operates under the alternate operating scenario pursuant to Paragraph 19 of this Consent Decree.

21. When the sinter plant first commences operation after execution of this Consent Decree, RG Steel shall demonstrate continuous compliance with the VOC emissions limits of COMAR 26.11.10.06(C)(1) .by the sixty-first (61) operating day. During the first sixty (60) operating days, the VOC emissions from the sinter plant shall not exceed a mass emissions limit of 2,340 pounds of VOC per calendar day. The mass emissions limit during the first sixty (60) operating days is authorized under this

Paragraph so that RG Steel may install, troubleshoot, and calibrate operations to maximize sinter production efficiency under the alternate operating scenario described by Paragraph 19. Subject to the provisions of Paragraph 19, this Paragraph constitutes a plan for compliance pursuant to § 2-611 of the Environment Article, with respect to demonstrating compliance with COMAR 26.11.10.06(C)(1) (control of VOC emissions from sintering plants).

Reporting and Record Retention

22. RG Steel shall retain, and instruct its contractors and agents to preserve, all non-identical copies of all records and documents (including those in electronic form) that directly relate to RG Steel's performance of its obligations under this Consent Decree. RG Steel shall preserve such documents for a minimum of five (5) years and shall provide those documents to the Department, or access thereto, within 30 days of receiving the Department's written request.

23. All reports and submissions required by this Consent Decree shall be mailed to:

Program Manager
Air Quality Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Force Majeure

24. RG Steel shall comply with the requirements of this Consent Decree unless

performance is prevented by events which constitute a Force Majeure, including an Act of God, fire, flood, hurricane, strike, riot, catastrophe, or other cause beyond the control of RG Steel (hereinafter, a "Force Majeure Event"). Force Majeure Events do not include (1) difficulties caused by reasonably foreseeable weather conditions which could have been overcome by reasonable efforts; (2) increased cost of performance; (3) natural market fluctuations; or (4) changed economic circumstances.

25. The burden of establishing a Force Majeure Event shall rest with RG Steel. If RG Steel establishes to the Department's satisfaction that it has been delayed in the implementation of any obligation under this Consent Decree the Department may extend the compliance date for such a period of time as allows compliance to be achieved as expeditiously as practicable after the delay excused pursuant to this Paragraph. Any extension granted shall in no event exceed the period of delay caused by the Force Majeure Event.

Regulation Review

26. The Department agrees to review and, if appropriate, revise its visible and particulate matter emissions limits for dirty gas bleeder valves on iron and steel production installations. To the extent such regulations are amended, the Department shall seek a revision to its state implementation plan, incorporating such changes.

Release

27. By this Consent Decree, the Department releases, resolves, and settles any claims against RG Steel, its past or present officers, directors, agents, employees, representatives, predecessors, affiliates, parent or subsidiary companies, successors or

assigns, that the Department may have under Maryland law or regulations for the Alleged Violations.

28. Nothing in this Consent Decree shall be construed to limit the Department's discretion to seek civil or administrative penalties, injunctive relief, or any other right, remedy or sanctions available to it for violations of this Consent Decree.

Effect of Settlement

29. Neither the actions undertaken by RG Steel in accordance with this Consent Decree nor payment of the penalty pursuant to Paragraph 1 shall constitute an admission or adjudication of liability or fact with regard to the Alleged Violations.

30. Other than the Department's release in Paragraph 27, nothing in this Consent Decree shall be construed to limit or prevent the Department from pursuing any remedies, including civil or administrative penalties, injunctive relief, or sanctions, available to the State pursuant to Title 2, Subtitle 6 of the Environment Article for any violation of State law, regulations, permits, or orders that are not expressly addressed in this Consent Decree, nor shall anything set forth in this Consent Decree be deemed to be a waiver of RG Steel's right to contest such actions by the Department.

31. Nothing in this Consent Decree shall be construed to prevent the Department from seeking injunctive relief, ordering additional corrective action, or taking any other action it deems necessary to prevent or abate any threat to public health, welfare or the environment to the extent otherwise authorized by State law.

32. Nothing in this Consent Decree shall be construed to alter RG Steel's obligation to comply with all applicable federal, State, or local statutes, regulations, permits,

and orders.

Sales or Transfers of Ownership Interests

33. The provisions of this Consent Decree shall apply and be binding on RG Steel and its successors and assigns, including any transferee of any legal or equitable interest in the Sparrows Point Facility, except for a lender or lenders taking a security interest in the Sparrows Point Facility or L-Blast Furnace, provided such lender or lenders exercise no operational or other control over the L-Blast Furnace. Prior to the transfer of such legal or equitable interest in the Sparrows Point Facility or the L-Blast Furnace, RG Steel shall provide a copy of this Consent Decree to the prospective successor-in-interest. RG Steel shall provide the Department with documentation satisfactory to the Department demonstrating its compliance with the provisions of this Paragraph upon consummation of the transaction.

34. Any agreement for the transfer of the Sparrows Point Facility or the L-Blast Furnace shall provide that the transferee shall assume responsibility under the terms of this Consent Decree and that the Department may enforce the terms of this Consent Decree against the transferee. RG Steel agrees that within 20 business days following the consummation of any agreement for the transfer of the Sparrows Point Facility or the L-Blast Furnace, RG Steel will provide the Department with documentation satisfactory to the Department demonstrating its compliance with the provisions of this Paragraph upon consummation of the transaction.

Subsequent Modification

35. The terms of this Agreement are contractual and not mere recitals. This

Consent Decree contains the entire agreement of the Parties and shall not be modified by any prior oral or written agreement, representation, or understanding. No modifications or termination of this Consent Decree, or any party thereof, shall be valid except by written amendment executed by the Department and RG Steel.

Severability

36. It is the intent of the parties that the provisions of this Consent Decree are severable and that, should any provision be declared by a court of law to be invalid or unenforceable, the other provisions shall remain in effect to the maximum extent reasonable.

General Provisions

37. This Consent Decree shall not be construed to create any rights in persons other than the Department and RG Steel.

38. This Consent Decree shall be governed by and construed in accordance with the laws of the State of Maryland.

39. All continuing obligations under this Consent Decree shall be incorporated into RG Steel's Title V operating permit.

40. This Consent Decree has been negotiated freely by the Department and RG Steel and shall in all cases be construed as a whole, according to its fair meaning and not strictly for or against the Department or RG Steel.

41. This Consent Decree is effective upon execution by all parties.

This Consent Decree is AGREED to and the terms and conditions herein CONSENTED to:

Signature Page for Consent Order in:
State of Maryland, Department of the Environment v. RG Steel Sparrows Point, L.L.C.

RG STEEL SPARROWS POINT, LLC.

Sept 1, 2011
Date

Glenn G. Mikaloff
Printed Name

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT

9/2/11
Date

George S. Aburn, Jr., Director
Air & Radiation Management Administration

Approved as to form and legal sufficiency
this 9th day of September, 2011.

Michael F. Strande
Assistant Attorney General

IT IS SO ORDERED:

9/14/11
Date

Judge
Circuit Court for Baltimore County